

**Before the Federal Communications Commission**  
**Washington, D.C. 20554**

In the Matter of	)	
	)	
Third Periodic Review of the	)	MB Docket No. 07-91
Commission's Rules and Policies	)	
Affecting the Conversion to	)	
Digital Television	)	

Directed to: The Commission

**COMMENTS OF WDEF-TV, INC.**

WDEF-TV, Inc., licensee of WDEF-TV, Chattanooga, Tennessee, by its attorneys, hereby respectfully submits its Comments in response to the *Notice of Proposed Rule Making*, FCC 07-70, released May 18, 2007 ("*NPRM*"), in the above-captioned proceeding. With respect thereto, the following is stated:

1. The Commission has recently released its *Seventh Report and Order* in MB Docket No. 87-268, *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, FCC 07-138, released August 6, 2007 ("*Seventh R&O*"). Attached to the *Seventh R&O* at Appendix B is a copy of the new DTV Table of Allotments, which sets forth both a DTV channel for each eligible TV station, together with the specified technical parameters, including directional characteristics, for each allotment. The *NPRM* in the instant proceeding has now proposed to limit any construction permit applications for post-transition facilities to the facilities specified in Appendix B. *NPRM* at ¶93. The Commission also has sought comment, however, from those stations unable to construct the precise facilities specified in Appendix B and has asked whether, if such stations were prohibited from expanding at all

beyond the specifications of Appendix B, they would be forced to reduce significantly their facilities. *Id.*

2. For WDEF-TV, the answer to the latter question is a resounding yes. WDEF-TV is a station which has a licensed digital television ("DTV") operation on its previously allotted DTV channel but which has elected to return to its current analog channel for its post-transition operations. As set forth in the Engineering Statement attached hereto as Exhibit A, WDEF-TV is currently licensed for analog operation on Channel 12 with a non-directional antenna with an effective radiated power ("ERP") of 316 kW, and it is licensed for digital operation on Channel 47 with a non-directional antenna with an ERP of 1,000 kW. Exhibit A at 1. The Appendix B allotment facilities for WDEF-TV, which are based upon the Channel 47 licensed facilities, specify an ERP of 20.3 kW and a directional rather than a non-directional antenna.

3. As set forth in the attached Engineering Statement, this combination of circumstances essentially leaves WDEF-TV in the position of attempting to shoehorn a non-directional operation into a directional footprint as specified by Appendix B. Such a change is particularly difficult when converting from a specified directional UHF pattern to a VHF channel, which allows for less flexibility in the design of directional antenna systems. In this case, in order to avoid exceeding the parameters specified by Appendix B in any respect, WDEF-TV would be forced to reduce its ERP to 3.5 kW, a substantial reduction below the 20.3 kW specified in Appendix B. *See* Exhibit A at 2. This drastic reduction in ERP would cause a corresponding loss of 7.8 percent of the population and 16.7 percent of the area within the station's Grade B contour. Clearly, these losses also are substantial.

4. In contrast, if WDEF-TV were allowed to specify post-transition facilities that would



slightly exceed in some directions the signal contour resulting from the specifications of Appendix B, while at the same time complying with the 0.5 percent *de minimis* interference criteria, WDEF-TV would be able at least to replicate its current analog service area. As noted in the *NPRM*, the Commission has long disfavored proposals that would result in a loss of television service, particularly in the case of a network affiliated such as WDEF-TV. *NPRM* at ¶38. Indeed, it has stated that this type of proposal has been “considered to be *prima facie* inconsistent with the public interest....” *Id.* In addition, the Commission’s settled policy has been that stations which met “the applicable ‘use or lose’ deadline and that are going to move to a different channel after the transition would be permitted to carry over their authorized maximized areas to their new channels.” *Id.* at ¶55, citing *Second DTV Periodic Report and Order*, 19 FCC Rcd at 18317-18318. Moreover, as recently as the *Seventh R&O*, the Commission has stated that one of its “objectives throughout the transition has been to permit broadcasters to reach with digital service the audiences they have been serving with analog service so that viewers will continue to have access to the stations that they are accustomed to receiving over the air.” *Seventh R&O* at ¶67. The effect of requiring stations strictly to stay within the parameters established by the Appendix B technical specifications, however, will be to cause stations to lose substantial portions of their existing analog service area and to deny stations the ability to carry over their maximized DTV service areas as previously authorized. Clearly, these results are contrary to both long-standing Commission policy and the public interest. The effect will be that some viewers accustomed to receiving network affiliates such as WDEF-TV over the air will wake up on the morning of February 18, 2009, and will find themselves unable to watch their favorite network shows. This reduction in service represents

not an advance but a step backward in television broadcasting and thus stands in opposition to the public interest.

5. In contrast, if the Commission will allow stations which are returning to their current analog channels as their post-transition DTV channel to exceed the Appendix B service contour in one or more directions, so long as the station complies with the 0.5 percent *de minimis* interference standard with respect to all relevant stations, the result would advance the public interest. Compliance with the *de minimis* interference standard will ensure that there is no public interest detriment to this approach. The public interest benefit of allowing stations to maintain their current analog service areas, on the other hand, is quite substantial. Indeed, to take a different approach would harm the interests of the viewing public, as there would be significant reductions in service below current levels.

6. Moreover, adopting the proposal set forth herein as Commission policy would conserve Commission staff resources as well. The Commission has noted that a station changing to a channel other than its current DTV channel which “determines that the parameters necessary to serve the coverage area specified in the post-transition DTV Table Appendix B differ from those specified in the post-transition Appendix B ... should apply for those changes in its application [for its post-transition channel.” *Seventh R&O* at ¶ 87. The Commission further noted that such applications will be evaluated in accordance with the standards adopted in the instant proceeding. Without a clear policy to allow stations returning to their analog channels to meet interference standards but exceed the parameters established in Appendix B, stations would be left with the choice of losing substantial service area or requesting waivers of the Appendix B requirements. As the Commission is obligated to consider such waiver requests, the result would be to slow



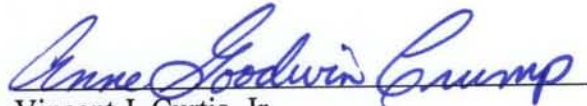
processing and thus service to the public, and at the same time to add to the application processing burdens of the staff, all without creating any public interest benefit. By definition, the changes for which approval is proposed herein would not create any objectionable interference and would serve only to maintain existing service to the public which could otherwise be lost.

WHEREFORE, the premises considered WDEF-TV, Inc. urges the Commission to allow any station which will operate post-transition on a DTV channel different from its initially allotted DTV channel to exceed the signal contours resulting from the facilities specified in Appendix B so long as such facilities would not cause more than 0.5 percent interference to stations currently requiring signal protection.

Respectfully submitted,

WDEF-TV, INC.

By:



Vincent J. Curtis, Jr.

Anne Goodwin Crump

Its Attorneys

FLETCHER, HEALD & HILDRETH, P.L.C.  
1300 N. 17<sup>th</sup> Street  
Eleventh Floor  
Arlington, Virginia 22209  
(703) 812-0400

August 14, 2007

ENGINEERING STATEMENT  
IN SUPPORT OF COMMENTS OF  
OF WDEF-TV, INC.  
IN MB DOCKET NO. 07-91

This Engineering Statement was prepared on behalf of WDEF-TV, Inc. ("WDEF"), licensee of WDEF-TV/DT, Chattanooga, TN, in support of Comments on the *Notice of Proposed Rule Making* in the matter of the Third Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television, MB Docket No. 07-91 ("*NPRM*").

The purpose of this statement is to address the FCC proposal to require proposed post-transition digital allotment facilities to limit their facilities so that there is no extension of the Appendix B allotment footprint. See Paragraph 93 of the *NPRM*.

Quite simply, WDEF does not want to suffer any service loss due to its transition to digital operations as a result of the FCC's proposed policy of no extension of its Appendix B footprint.

WDEF-TV is licensed for analog operation on Channel 12 with a non-directional antenna with an effective radiated power (ERP) of 316 kW. The antenna is top-mounted on its tower with a radiation center height of 767 m AMSL.

The WDEF-DT proposed Appendix B allotment facility is for operation on Channel 12 with a directional antenna having a maximum ERP of 20.3 kW and an antenna height of 723 m AMSL. The WDEF-DT Appendix B allotment is based on the WDEF-DT Channel 47 digital facility, which is licensed for operation with an ERP of 1000 kW using a non-directional antenna, which is side-mounted on the WDEF tower at a height of 723 m AMSL. Figure 1 is a summary sheet showing the parameters of the WDEF-DT proposed Appendix B allotment with its directional antenna field values.

The problem for WDEF is that in order for it to return to its analog Channel 12 antenna, which is a top-mounted non-directional antenna, for post-transition digital operation, its ERP will be limited to 3.5 kW in order to maintain its Appendix B footprint.

If WDEF-DT were to employ its existing non-directional top-mounted antenna and comply with the FCC's proposed 0.5% de minimis interference criteria, the WDEF-DT facility would be permitted an ERP of 13 kW. This would allow WDEF-DT to provide service to a population and area that is at least equal to or slightly better than the present analog service area.

The FCC OET-69 Service and Interference analysis software was employed to calculate the predicted population and area from the various facilities options for WDEF-TV/DT on Channel 12. The results are summarized in the table below:

Facility	Population (2000)	Area (sq. km)
WDEF-TV Analog Channel 12	1,109,819	24,654
FCC Appendix B Allotment	1,171,476	25,745
3.5 kW ND Top-Mount	1,023,691	21,631
13-kW ND Top-Mount	1,215,769	27,022

Based on this, operation with the 3.5-kW Appendix B facility would result in a service area loss of 86,128 persons within an area of 4,114 square kilometers relative to the WDEF-TV Grade B service – a loss of 7.8% in population and 16.7% in area.

However, by permitting WDEF-DT to operate with its non-directional antenna within the 0.5% de minimis interference criteria, the facility will be able to serve a population and area that slightly exceed the present analog service area (but not in all



directions) and that of the proposed Appendix B allotment facility without unacceptable interference.

The problem for WDEF-TV/DT described above is one that is known to exist for a number of stations transitioning from their digital channel back to their present analog channel. If it were not rectified there would be significant loss of existing television service just to comply with the FCC's policy of no extension of the Appendix B footprint. Therefore, the FCC should permit stations such as WDEF-DT to extend beyond their Appendix B footprint at the outset of the filing period, provided that the FCC's proposed 0.5% de minimis criteria are met.



Louis Robert du Treil, Jr., P.E.

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Ave.  
Sarasota, Florida 34237

August 13, 2007



Figure 1



# TV Inquiry

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

**Summary:**      **Callsign:** WDEF-TV    **Channel:** 12    **Offset:**    **Service:** DT    **Status:** CP    **Zone:** 2

**Record Type:** C    **City:** CHATTANOOGA    **State:** TN    **Facility ID:** 54385

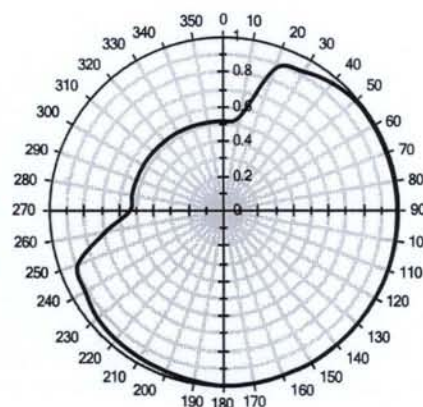
**Application File No.:** BPCDT - 19991025ACX    **Application ID:** 420546

**Latitude (NAD 27):** 35-08-06.0 N    **Latitude (NAD 83):** 035-08-06.26 N    **ERP:** 20.269 kW

**Longitude (NAD 27):** 085-19-25.0 W    **Longitude (NAD 83):** 085-19-24.85 W    **RCAMSL:** 723 meters

**Antenna Pattern:**      **Antenna Type:** D    **Antenna ID:** 74582    **Antenna Rotation:** 0 deg

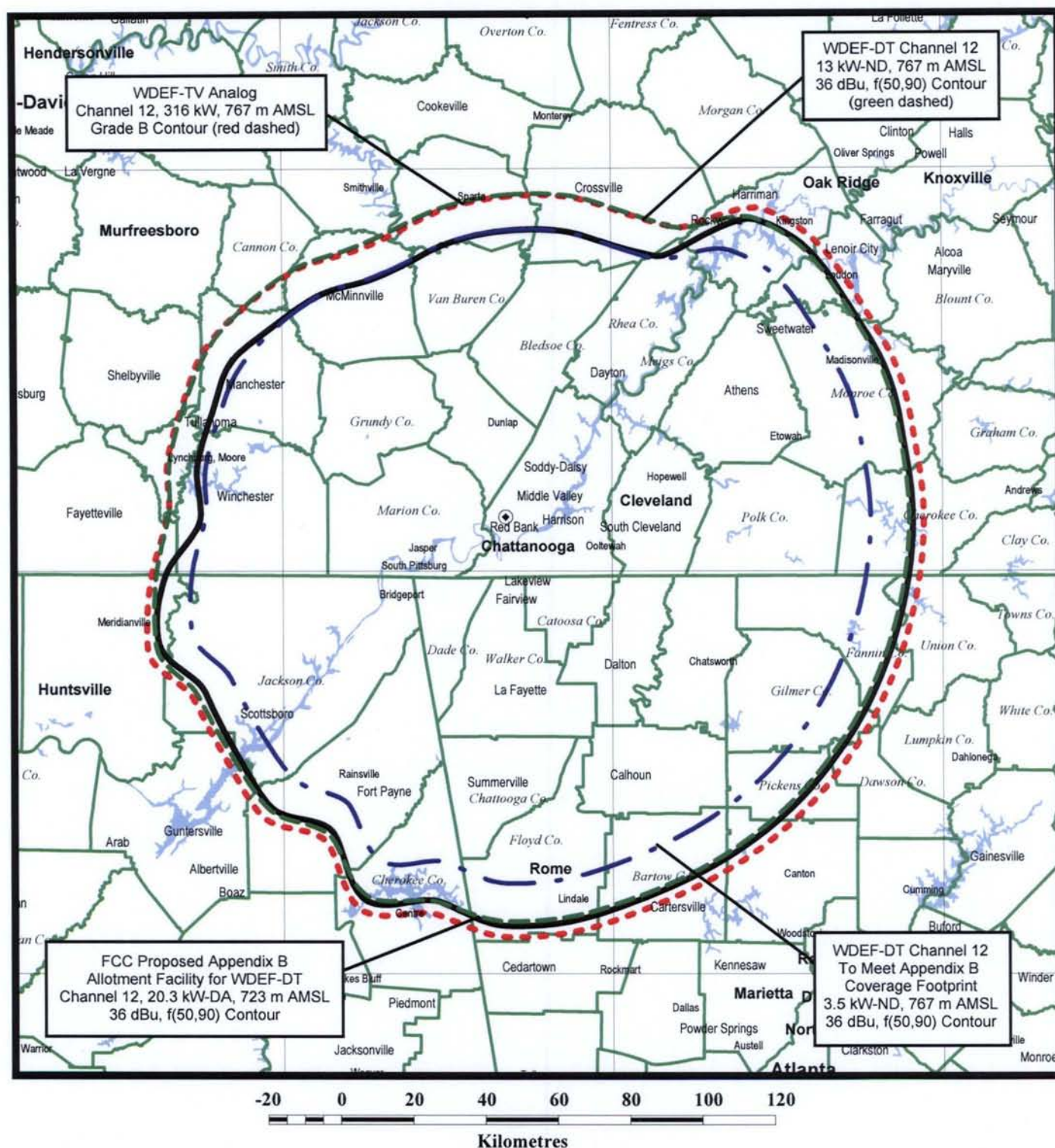
0° 0.521	90° 0.990	180° 1.000	270° 0.539
10° 0.555	100° 0.992	190° 0.986	280° 0.535
20° 0.873	110° 0.994	200° 0.975	290° 0.532
30° 0.926	120° 0.995	210° 0.967	300° 0.530
40° 0.963	130° 0.997	220° 0.961	310° 0.528
50° 0.986	140° 0.998	230° 0.949	320° 0.526
60° 0.987	150° 0.999	240° 0.919	330° 0.523
70° 0.988	160° 0.999	250° 0.893	340° 0.521
80° 0.989	170° 1.000	260° 0.690	350° 0.520



**Antenna Model:** CDB

**Note:** Rotation or tilt is not applied to the pattern shown

Figure 2



## PREDICTED COVERAGE CONTOURS

duTreil, Lundin & Rackley, Inc. Sarasota, Florida